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## MYOCARDIAL ISCHEMIA AND INFARCTION

### THE “SMOKER’S PARADOX:” IS IT INFLUENCED BY THE DIFFERENT TYPES OF TOBACCO USED? FINDINGS FROM THE 2ND GULF REGISTRY OF ACUTE CORONARY EVENTS (GULF RACE)-2

ACC Poster Contributions

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**Objective:** Because of the recent increased use of smokeless tobacco (ST) and waterpipe smoking (WS), their effects and health consequences are of considerable public health interest. We evaluated the prevalence and effects of cigarette, WS and ST use on patients with acute coronary syndrome (ACS) in 6 Middle-eastern countries .

**Methods:** Analysis of the Gulf Registry of Acute Coronary Events (Gulf RACE)-2 survey which included 7,939 consecutive patients hospitalized with ACS was made and patients were divided into current smokers (CS), ex-smokers (ES)(stopped smoking >1 years prior admission) and non-smokers (NS). Smokers were subsequently divided according to the tobacco type used; cigarette smoking, WS or ST users.

**Results:** Overall 47% of patients were current smokers and 17% were ES. 48% were cigarette smokers, 3.85% were WS & 3% were ST users. When compared with non-smokers, current smokers (CS) were younger and had lower cardiovascular risk factor profile and were less likely to have prior cardiovascular disease and chronic renal disease. CS patients were more likely to present with ST-elevation myocardial infarction (STEMI) and to receive evidence-based therapy including reperfusion therapy when compared to NS and ES. The in-hospital mortality rate was significantly lower in CS when compared to NS and ES which is consistent with the ‘smokers paradox’ (3.5%, 5.5% & 4.6% consecutively,  $p=0.0001$ ). After adjustment for baseline variables overall smoking was not independent predictor of increased risk (OR=0.7, 95% CI 0.57-1.0;  $p=0.058$ ). Subset analysis according to the tobacco type used revealed that the mortality rate among WS was significantly higher when compared to cigarette smokers, smokeless tobacco users and non-smokers (7.2%, 3.5%, 3.3%, 5.5% consecutively;  $p=0.0001$ ).

**Conclusion:** Tobacco use is highly prevalent among Middle-eastern patients presenting with ACS. The mortality rate is influenced by the tobacco type used. Cardiac patients should be counseled about both cigarette and other forms of nicotine use. Further studies are required to evaluate the impact of various forms of tobacco use on coronary artery disease.